REMARKS

The specification has been amended in order to correct grammatical and idiomatic errors contained therein. No new matter has been added.

The claims have been amended in order to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. No new matter has been added.

Claims 1-3 have been rejected under 35 USC 103(a) as being unpatentable over Kawakami et al. Claims 4-6 have been rejected under 35 USC 103(a) as being unpatentable over Kawakami et al in view of Applicants' statement of the prior art and the patent to Miyamoto et al. Applicants respectfully traverse these grounds of rejection and urge that the currently claimed invention clearly is patentably distinguishable over the prior art cited by the Examiner.

The presently claimed invention is directed to a thermally sensitive recording medium comprising a thermally sensitive recording layer containing a colorless or pale colored basic colorless dye and an organic color developing agent as main components on the support. The thermally sensitive recording medium contains a specified compound according to general formula (1) as an organic color developing agent and a specified oxalate compound as a sensitizer. This enables the provision of a thermally sensitive recording medium having both efficient color development sensitivity and thermal resistance. It is respectfully submitted that the presently claimed invention is patentably distinguishable over the prior art cited by the Examiner.

The Kawakami et al reference discloses a recording material in a recording sheet which is free from surface fogging and has excellent dynamic coloring sensitivity, wet heat resistance, heat resistance, light resistance, plasticizer resistance and water resistance. This recording

material is made from a composition comprising at least three different compounds. However, there is no specific disclosure in Kawakami et al of the sensitizer of general formula (2) of the present invention in which R_1 is a halogen atom. Although paragraph [0045] of Kawakami et al does disclose various compounds that can be used as sensitizers such as dibenzyloxalate, di(4-methylbenzyl)oxalate and di(4-chlorobenzyl)oxalate, none of the Examples in this reference specifically disclose the use of di(4-chlorobenzyl)oxalate as the sensitizer. Therefore, at best, this reference only presents a showing of prima facie obviousness under 35 USC 103(a) of the currently claimed invention.

As shown in Table 1 of the present specification, there is an unobvious difference in thermal resistance when using di(4-chlorobenzyl)oxalate in the present invention as a sensitizer as opposed to di(4-methylbenzyl)oxalate.

The following is a comparison of Example 1, Example 9 and Example 10 in the present application. In Example 1, di(4-chlorobenzyl)oxalate is used as a sensitizer (in Table 1, indicated as HS-3519) and in Example 10, dibenzyloxalate is used as a sensitizer (in Table 1, indicated as HS-2046), with all other conditions (color developing agent, dye and a method to carry out the tests) being exactly the same. The Macbeth density of the background part in the thermal resistance test are 0.08 in Example 1, 0.02 in Example 9 and 0.20 in Example 10. The Macbeth density of the background part in the color developing sensitivity test are 0.06 in Example 1, 0.07 in Example 9 and 0.07 in Example 10. When using the di(4-chlorobenzyl)oxalate of Example 1, the background color density of 0.06 turns to 0.08 after 24 hours preservation at 60°C and is not changed so remarkably. On the other hand, when using the di(4-methylbenzyl)oxalate of Example 9, 0.07 turns to 0.22 after 24 hours preservation at 60°C. Further, when using the dibenzyloxalate of Example 10, 0.07 turns to 0.20 after 24 hours preservation at 60°C. These facts indicate specifically that the thermally sensitive recording

paper of Example 1, in which di(4-chlorobenzyl)oxalate is used as a sensitizer, is printed by an applied energy of 0.34 mJ/dot, a printed image of 1.45 Macbeth density is obtained and the Macbeth density of the not printed part (background part) is 0.06, which means white, and even after preservation for 24 hours at 60°C, the color of the background part is white. On the other hand, in Examples 9 and 10, the color of the background part changes to dark after preservation for 24 hours at 60°C. Therefore, there is a big difference in practical use.

When using di(4-methylbenzyl)oxalate as a sensitizer, it is obvious that the use of di(4-methylbenzyl)oxalate affects the background color after being heated from the data of Kawasaki et al. That is, in Table 2 of Kawakami et al, the Macbeth density (100°C) of Example 1 (di(4-methylbenzyl)oxalate is used as a sensitizer) is 0.26, Example 4 (1,2-bis(phenoxy)ethane is used as a sensitizer) is 0.15 and Example 5 (diphenylsulfone is used as a sensitizer) is 0.17. Namely, it is clearly shown that Example 1 which uses di(4-methylbenzyl)oxalate as a sensitizer is the worst.

As shown above, the use of the presently claimed sensitizer containing a halogen clearly provides superior results over the generic disclosure of Kawakami et al and establishes the patentability thereover. Therefore, the objective test data of record in the present application is more than sufficient to rebut a prima facie obviousness rejection under 35 USC 103(a) over the Kawakami et al reference.

Applicants' admission was stating the advantages of employing inkjet recording layers on the back of thermally sensitive recording media and the Miyamoto et al reference was cited to teach that inkjet recording layers employing a water-soluble polymer, a water-insoluble inorganic salt containing divalent ions and a cationic resin give excellent results in water and light resistance and image preservability. However, the secondary references do not cure the deficiencies of the

primary reference in that they fail to show the unobviousness advantages gained by using the presently claimed sensitizer in which R_1 is a halogen atom. As such, it is respectfully submitted that the presently claimed invention is patentably distinguishable over the prior art cited by the Examiner.

The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,

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136.07/05